

MOS Fied Effect Transistor

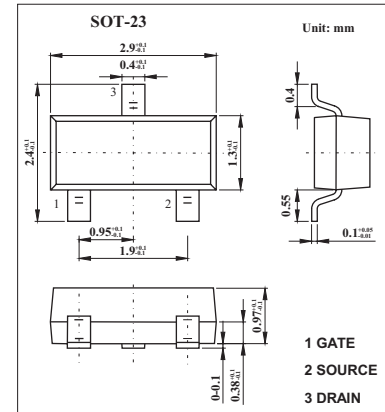
2SJ205

■ Features

- Directly driven by Ics having a 3V poer supply.
- Has low on-state resistance

$R_{DS(on)}=5\ \Omega\ \text{MAX.}@V_{GS}=-2.5V, I_D=-10\text{mA}$

$R_{DS(on)}=3\ \Omega\ \text{MAX.}@V_{GS}=-4V, I_D=-300\text{mA}$



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to source voltage $V_{GS}=0$	V_{DSS}	-16	V
Gate to source voltage $V_{DS}=0$	V_{GSS}	± 16	V
Drain current (DC)	I_D	± 500	mA
Drain current(pulse) *	I_D	± 1.0	A
Power dissipation	P_D	2.0	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10\ \text{ms}$; $d \leq 50\%$.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=-16V, V_{GS}=0$			-10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 16V, V_{DS}=0$			± 5	μA
Gate cut-off voltage	$V_{GS(off)}$	$V_{DS}=-5.0V, I_D=-10\ \mu\text{A}$	-1.4	-1.9	-2.4	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=-3.0V, I_D=-0.3A$	0.4	0.5		s
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=-2.5V, I_D=-10\text{mA}$		3.0	5.0	Ω
		$V_{GS}=-4V, I_D=-0.3A$		1.5	3.0	Ω
Input capacitance	C_{iss}	$V_{DS}=-3.0V, V_{GS}=0, f=1\text{MHZ}$		105		pF
Output capacitance	C_{oss}			90		pF
Reverse transfer capacitance	C_{rss}			15		pF
Turn-on delay time	$t_{d(on)}$	$V_{GS(on)}=-3V, R_G=10\ \Omega, V_{DD}=-3V, I_D=-0.3A, R_L=10\ \Omega$		185		ns
Rise time	t_r			900		ns
Turn-off delay time	$t_{d(off)}$			40		ns
Fall time	t_f			135		ns

■ Marking

Marking	PD
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